

# ENVIRONMENTAL *Update*



Nebraska Department of Environmental Quality

Summer 2000

## TMDLs: Refining Limits to Protect Surface Water

On July 11, the Environmental Protection Agency established some revised water quality rules that address how states monitor and evaluate the nation's rivers and lakes. Although the overall impact of these revisions is not yet clear, much of the structure is similar to efforts that are already under way in Nebraska.

The revised rules deal with a monitoring process called TMDLs, or Total Maximum Daily Loads. The TMDL process involves evaluating a water body, such as a stream, to determine the volume of pollutants that can enter the stream before its quality is affected. After a TMDL is established, this information can impact the discharge practices in the stream's watershed region. For example, businesses that discharge into the stream may receive more stringent limitations in their permits, if it is determined that TMDLs are being exceeded and the quality of the stream is being impaired. The rules do not grant EPA or the states additional authority over such things as nonpoint source pollution, but are considered substantial revisions.

The recent action by EPA revises existing rules regarding TMDLs, and has an effective date of October 2001. The revisions are extensive, and have changed considerably from the first time that the Department of Environmental Quality reviewed them. In the original comment period, DEQ submitted numerous comments of concern to EPA regard-

ing the proposed rules. When the revisions were announced in July, EPA said that most substantive concerns raised by states were addressed. There has subsequently been some strong political reaction to the revised rules, and some Congressional representatives have spoken in terms of taking action prior to the October 2001 implementation date.

Regardless of whether the federal revisions stay intact, are changed, or are rescinded by Congress, the overall TMDL process will continue

to exist, and is something that Nebraska will continue to pursue.

"We have had most of the components of the TMDL program in place for quite some time, although it may not have been called by that name," said Mike Linder, DEQ Director.

"After all, what we are talking about is planning for watershed protection, which just makes good sense. Our agency's Water Quality Division has been taking samples and monitoring our rivers and lakes to determine their quality. This information has been considered during the permit-



Photo by Brian McManus

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## A Message From The Director



Mike Linder

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In this edition of the Environmental Update you will find a number of articles dealing with high profile issues. I hope that you are able to pick up a couple of themes from these stories.

One theme deals with involvement and collaboration. When issues deal with broad based causes of pollution, we are more successful if we work together. If an issue involves water or air quality problems caused by a number of sources, DEQ's first step needs to involve identifying interested or affected parties and including them in the process. Our experience has been that if all of the parties have input and are treated equally there is a willingness to resolve problems. Also, it is crucial that all parties have a willingness to compromise and are able to focus on their interests rather than on positions.

A second theme involves limitations of DEQ's authority and how we communicate those limitations. The DEQ was created by the Nebraska Legislature. We have no more ability or authority than what is granted to the agency by law. Often, the most volatile issues with which DEQ gets involved hinge on topics which are beyond the agency's authority. For example, the DEQ does not have the ability to regulate the location of sources of pollution nor do we have authority to regulate odors. Many situations involve people who are affected by a facility either because of its location or because of odors emanating from the facility. DEQ's

authority is focused on air and water quality only and this is the message that we send. This message can be very frustrating to people who are looking to their government for resolution to a problem. More often than not, the problem is a real one but it is just not within DEQ's authority.

Our challenge is to effectively communicate the role of the agency. We are committed to carrying out the authority that is granted to us but we must also clearly state that there are things which the agency cannot do. It is through this understanding that citizens and decision-makers alike can intelligently evaluate a situation to decide if the state or local government should change its laws. The DEQ is making an effort to be better communicators on this and other issues. In this age of advanced technology we are using tools such as the Internet and world wide web to have more effective and nearly instantaneous outreach. We also hope to encourage more personal interaction by establishing additional field offices to make the department more visible within Nebraska.

The Environmental Update will continue to report on high profile issues in the state and would like to hear your ideas for story topics. If you have any story ideas or other comments, please submit them through the Internet address or the Lincoln office mailing address, listed at the bottom of this page.

## *We'd like to hear from you...*

The Environmental Update, which is printed three times yearly, is designed to help the Nebraska Department of Environmental Quality staff share with the public our perspectives on important environmental issues. We welcome your thoughts and ideas on these issues. If you have questions, comments, or suggestions for future topics for this newsletter, please contact the Update's editorial staff in the Public Information Office. You can contact Brian McManus or Richard Webster at DEQ's Lincoln offices:

Phone: (402) 471-2186  
Address: 1200 N St., Box 98922, Lincoln, NE 68509-8922  
E-mail: Pubinfo@mail.deq.state.ne.us  
Web site: **www.deq.state.ne.us**

## Air Quality Improvement Projects Under Way in Dakota County, Lexington

Work is now under way at two sites in Nebraska which should lead to improved air quality at both locations. Both Dakota County and Lexington have high ambient air levels of Total Reduced Sulfur, or TRS.

This spring, DEQ gave approval to IBP, Inc., a meatpacker that has operations in both areas, to begin construction on environmental improvement projects. The agency believes these projects will result in a reduction in TRS emissions from the company's plants. TRS is a combination of sulfurous compounds, including hydrogen sulfide, which can have a "rotten egg" odor. The state has established ambient air quality standards for TRS because it has been determined that these compounds pose a potential health threat.

Although IBP is not the sole source of TRS in Dakota County and Lexington, the state has determined that they are a significant source, and has sought a cooperative solution to improve air quality. At both sites, IBP has proposed to cover wastewater lagoons, and capture and treat air emissions. At Dakota County, this involves construction of new lagoons, while at Lexington, the company will cover existing lagoons. After reviewing these plans, DEQ informed the company in that it could begin construction work prior to issuance of the final permits.

"We have allowed construction to begin at both locations because completion of these projects will provide relief to citizens in the areas," said DEQ Director Mike Linder. "We have concluded that



Photo by Dave Montag

A construction crew laid the foundation in May for a building which will house air emission control equipment at the Dakota County IBP site.

TRS emissions will be reduced, and these projects will be protective of public health and the environment."

For the Dakota County site improvements, a public comment period was conducted for 30 days in the spring, and the agency reviewed and responded to all comments. On July 14, the air construction permit was issued. IBP indicated it is possible for the project to be completed during this year's construction season.

A separate but related wastewater permit for the Dakota County site was also issued by DEQ this spring. However, this permit has been contested by IBP, because the company objects to ground water monitoring requirements. Contested case proceedings will be conducted by the agency in an effort to resolve these issues. This case should not affect the schedule of lagoon construction work in Dakota County, Linder said.

In late May, DEQ also allowed IBP to begin construction to cover lagoons at their facility in Lexington. This project is expected to follow a similar path as the Dakota County process. The public notice period

began June 28, and concluded July 28. All comments will be reviewed and responded to prior to the agency making a final determination regarding permit issuance. As with the Dakota County project, IBP intends to complete the environmental improvements during this construction season.

Linder explained that DEQ has the ability to allow construction to begin prior to the issuance of final permits when a project has special needs, could improve environmental conditions, or is in the public's best interests. He said both of these projects meet these criteria, since covering the lagoons and related actions should reduce air emissions.

"We understand the frustrations experienced by citizens in the two areas, because this has been a long and sometimes contentious process — particularly in Dakota County," Linder said. "However, we are confident that the plans submitted by IBP will dramatically improve conditions."

*Article by Brian McManus*

*For information on other efforts in Lexington to control TRS see page 11.*



## Public Concern Grows with Feedlot Size

Broken Bow, a Custer County community of about 4000, is located in central Nebraska where the rolling hills and farms of the east give way to the sandhills and ranches of the west. Livestock operations, large and small, are common in this primarily agricultural landscape. But as much of the state has experienced recently, the largest operations have grown to sizes unimaginable just a few years ago. The Broken Bow area is now home to the largest cattle feeding operation in the state: Adams Land & Cattle Company. As its size has increased, so have concerns and complaints from Broken Bow residents.

The Adams Land and Cattle south lot (Adams also owns a considerably smaller cattle operation to the east of Broken Bow) is located about two miles south of Broken Bow, west of Highway 21. The feedlot has a capacity of 85,000 head of feeder cattle on nearly 600 acres. DEQ's involvement with regulating the feedlot goes back to the early days of the department: the first entry in the Adams facility file is a 1972 inspection report of a 2000 head operation which noted no problems. And there have been few regulatory problems since.

"It is a well-run operation in compliance with our livestock waste management regulations," said Dennis Heitmann, supervisor of DEQ's Agriculture Section. "It was the first and possibly still the only one in the state with a computerized watering system used to control dust."

In addition to the dust control system, the Adams feedlot uses other management practices to control potential sources of odors, dust, and insects, Heitmann said. These include regularly removing manure from pens, aerators in holding ponds, restricting animal



Photo by Brian McManus

Jim Sexson of DEQ's West Central field office in North Platte changes the filter of an air particulate monitor in Broken Bow.

movement, and regular cleaning of debris basins. He noted that due to recent changes to Title 130 (state livestock waste control regulations), the Adams operation and many others across the state will need to submit additional information to the department concerning their odor control practices, operation and maintenance practices, emergency response plan, and nutrient management plan.

Despite compliance with state livestock waste regulations and a technologically advanced operation, complaints from Broken Bow residents about dust and odors prompted DEQ to check the air around the operation for TRS (total reduced sulfur). TRS is a toxic air contaminant sometimes detected near wastewater facilities, lagoons, livestock operations and other facilities where decay is present. Hydrogen sulfide, a component of TRS, was detected downwind from the Adams facility, so the department decided to begin monitoring air quality in Broken Bow.

Two types of monitors were installed: two PM10 monitors (one in Tomahawk Park, one on the roof of the high school) to measure small particulates such as dust, and one

TRS monitor (inside the city shop, measuring the air outside). Hard-to-diagnose mechanical problems plagued the TRS monitor for several months, but it has been collecting data since March. There were also problems and possible vandalism with the Tomahawk Park PM10 monitor, but it has monitored reliably since December 1999.

"The monitors were located in areas where we would expect public exposure and according to established siting criteria to eliminate potential interferences," said Shelley Kaderly, DEQ Air Quality Division Administrator. "These locations, rather than at the boundary of the Adams facility, will give us information on whether levels of particulates and TRS in the air are above established standards to protect public health."

The results of monitoring so far should be encouraging to the citizens of Broken Bow. None of the three monitors have shown any violations of state standards -- air contaminant levels intended to protect public health. The PM10 monitors will continue collecting data until at least December; the TRS monitor will continue until at least March 2001. A minimum of one

*Continued on page 6*

## Save Money and Energy

The Nebraska Department of Environmental Quality Pollution Prevention Team thinks there is an easy way to help the environment and save money at the same time. Let's look at using compact fluorescent lamps both at work and at home!

### What are Compact Fluorescent Lamps?

Compact fluorescent lamps (CFLs) are smaller versions of standard fluorescent lamps and are about the size of standard incandescent bulbs. Compared to regular incandescent light bulbs, they consume one-fourth the energy, last 10 times longer, and produce at least 75% less heat — all while delivering more light. Thanks to recent developments, the light produced by CFLs closely matches incandescent bulbs and objects should appear to be the same color under either type of light.

### Where can CFLs be used?

Wall mounted lamps, table lamps, reading lamps, floor lamps and some ceiling applications that currently use incandescent bulbs are well suited for CFLs. Smaller CFL versions can be used in signs and ceiling fixtures. Not all CFLs are suited for dimmable applications, outdoor use in cold temperatures, and high ceiling applications (CFLs provide a more diffuse light). Be sure to study and measure your fixture so you can buy the appropriate CFL.

### How much money can be saved?

The table at right assumes that the electric rate is 6 cents per kilowatt-hour (around normal for Nebraska), the minimum labor involved in replacing the light bulbs is \$6.00 per hour, and it takes 30 seconds to replace a bulb.

### Your Benefits in using CFLs.

Longer Life: Most CFLs have an average life of 10,000 hours, which is about 10 times longer than the average incandescent bulb. Think about time and energy saved not having to change a bulb an extra nine times.

More Efficient Lighting: CFLs produce at least 75% less heat while producing more light. This will save you in cooling costs during the summer.

Lower Electric Bills: As shown in the table below, there can be some real energy savings since CFLs use about one-fourth the energy of similar incandescent bulbs.

Environmental Savings: Less energy used means more natural resources can be saved and less pollution will be entering our environment.

### Where Can CFLs be purchased?

To purchase compact fluorescent lamps, check in your telephone business directory under Lighting or Electrical Equipment and Supplies. Also check hardware stores, building supply stores and home centers. If the sales person is unaware of CFLs, speak to the manager. These stores may be able to special order products. Or check with the manufacturer directly. Most major lighting manufacturers (Sylvania, Philips, GE) appear to have their own line of CFLs as do many smaller, more specialized firms. A good place to get more information is the internet.

Go to a major search engine and type in "compact fluorescent." Also contact your local electric utility to see if they offer a rebate program. For state office use check with DAS Building Division. For more information on CFLs contact:

CFL Energy Star Program, Bill Noel  
(202) 586-6149  
[www.energystar.gov](http://www.energystar.gov)

Energy Star Hotline  
(202) 775-6650

Nebraska Energy Office  
(402) 471-2867

DEQ Pollution Prevention Team  
Steve Moeller  
(402)471-0276

National Association of Lighting Distributors  
(716) 875-3670 Fax: (716)875-0734

American Lighting Association  
800-274-4484 or (214) 698-9898

Keep track of the number of CFLs you switch to and how many watts you have saved, please send a card/fax/email to the DEQ P2 team. Thanks!  
P.O. Box 98922  
Lincoln, Nebraska 68509-8922  
fax: 402-471-2909  
email:pubinfo@mail.deq.state.ne.us

*Article by Steve Moeller*

Lightbulb	27-watt CFL *	100-watt bulb
Lamp Life	10,000 hr	1000 hr
Number of Lamps (10,000 hrs)	1	10
Cost (per 10,000 hrs)	\$14.00	\$ 2.50 (10 bulbs x \$.25)
Energy Cost (10,000 hrs)	\$16.20	\$60.00
Labor Costs	\$ .05	\$ .50
<b>TOTAL (10,000 hrs)</b>	<b>\$30.25</b>	<b>\$63.00</b>

**Savings per lamp life(10,000 hrs) \$32.75**

\*YOU MIGHT GET THE SAME LIGHT OUTPUT AS A 100-WATT INCANDESCENT BULB WITH LESS WATTAGE DEPENDING ON MODEL OF CFL LIGHT PURCHASED. (Various wattages are available for CFLs, comparable in light output to 25, 40, 60, 75, and 100-watt incandescent bulbs.)

## Guide Rock and Abandoned Wells

Guide Rock, like many small towns and villages, recently found itself facing concerns about the community's environmental health. The south-central Nebraska village (1990 pop. 290) contacted DEQ's Nebraska Environmental Partnerships (NEP) program to discuss its problems and concerns. NEP provided Guide Rock with a grant so the village could complete a community assessment, and identify current or potential problems with its drinking water and wastewater systems.

The primary concern identified by the assessment was high nitrate levels in the village's public water wells. The nitrate levels started increasing gradually in 1995 and were over 10 parts per million (ppm) by December 1997 (10 ppm is the maximum level of nitrates in drinking water considered safe for all consumers of the water). In October 1999, nitrate levels were 10.4 and 9.4 in the village's two wells.

Due to concerns about the nitrate levels, the NEP team assigned to work with Guide Rock discussed the Wellhead Protection Area program with the village board. The board asked the DEQ's Ground Water Section to proceed with drawing a wellhead protection area map for Guide Rock's public water supply wells. (The Wellhead Protection Area program assists communities and other public water suppliers in preventing contamination of their water supplies.) A meeting was held for all village residents to discuss the proposed wellhead protection area, and in July 1998, the village board passed an ordinance to designate the protection area.

"The village board is to be commended, as it has been very supportive of these efforts, and has been active in undertaking preventive activities," said M.J. Rose, Nebraska Environmental Partnerships program coordinator. "In

particular, the village board is committed to providing the residents a good public water supply at the least possible cost to residents."

One method identified by the Wellhead Protection program to protect Guide Rock's drinking water was the proper closing of abandoned wells. Correctly plugging and capping abandoned wells can eliminate a risk of contamination to the ground water aquifer. In April

**"...the village board is committed to providing the residents a good public water supply at the least possible cost..."**

1999, the village board contacted the Lower Republican Natural Resources District regarding its abandoned wells program. This program provides up to 60 percent of the cost of properly closing a well.

The village board then sought assistance from the NEP for possible funding sources to assist in closing wells. The NEP located a source of cost-share funding to pay for the remaining 40 percent of closure costs. These two funding sources enabled the village to pursue the proper closing of abandoned wells at no cost to Guide Rock residents.

Village board members and the village clerk conducted a survey of properties within Guide Rock and within the wellhead protection area to locate abandoned wells. Residents were given information about the abandoned well program and were encouraged to attend a September 1999 public meeting to discuss the program. The Lower Republican NRD, DEQ, and a local well driller presented information at the meeting. Residents were given the opportunity to ask questions and to sign up for the program. A total of 37 wells were signed up. The closing of these wells began in April.

"Guide Rock's drinking water supply will now be much safer," Rose said. "Numerous potential sources of contamination have been eliminated. I'm glad that Nebraska Environmental Partnerships was able to assist in this process. Since there are additional abandoned wells in the village in need of proper closing, I hope that this initial success will encourage citizens to volunteer other wells for the program in the future."

*For additional information on the abandoned well program, contact your local natural resources district or MJ Rose of the DEQ at (402) 471-3193.*

*Article by Tom Malmstrom*

### *Public Concern, cont. from page 4*

year's data will be collected from each monitor to provide the department with a sound basis for determining if there are any health-related air quality concerns associated with PM10 and TRS.

"The reason for complaints from Broken Bow may, in the end, be a situation which must be resolved locally," said DEQ Director Mike Linder. "Should air monitoring readings continue to remain low, the situation involves an odor problem, but not a violation of state air quality standards. The Department of Environmental Quality has no authority to regulate odor.

"When a community or area is

confronted with complaints of odor and DEQ determines its regulations are not being violated, the options for resolution rest with local government. The community or county must look at its zoning authority or police power to address odor issues. In the meantime, in Broken Bow's case, we will continue monitoring and conducting routine inspections of the facility's waste control systems."

*Broken Bow monitoring information is available on the DEQ website: [www.deq.state.ne.us](http://www.deq.state.ne.us) under Agency Programs/Air and Waste Man. Div./Air Quality/Ambient Air Monitoring Data.*

*Article by Rich Webster*



## Eastern Field Office Opens in Omaha

With desks in place, computers turned on, and telephones plugged in, the Department of Environmental Quality's Eastern Field Office opened for business in early May. The office is located in Omaha at the Papio-Missouri River Natural Resources District Center at Chalco Hills Recreation Area. Three full-time staff are assigned to the office, which will provide DEQ a permanent presence in the Omaha area for the first time.

"Establishment of the Eastern Field Office is a major step towards meeting the department goal of establishing a stronger community presence throughout the state," said Jay Ringenberg, DEQ Deputy Director for Programs. "The office is designed to provide more responsive environmental services to Nebraskans residing in Omaha and the eastern portion of the state."

Three employees from DEQ's headquarters in Lincoln have relocated to the Omaha office: Mike Mallory, Todd Davis, and Bret Anderson have been assigned various duties including waste remediation and compliance, water quality permitting and compliance, stormwater, and underground storage tanks.

DEQ has maintained a field office in North Platte (now known as the West Central Field Office) since 1973, and one employee in Chadron since 1983. DEQ's Central Field Office in Holdrege recently opened in temporary space, and will likely be located in permanent space by the end of September. An additional office will open later this year or early next year in Norfolk.

*Article by Rich Webster*



Photo by Rich Webster

Omaha field office staff (from left) Brett Anderson, Mike Mallory and Todd Davis.

## Dehydrators' Cooperative Response Quells Emission Concerns

A cooperative effort between DEQ's Air Quality Division and alfalfa dehydrators in Nebraska has led to coordinated solutions and effective controls at those facilities.

Particulate air emissions from these facilities had been an ongoing concern for the state, and evaluations by DEQ in recent years increased those concerns. The agency determined that half of the 18 alfalfa dehydrators (also known as "dehys") were in violation of particulate emission limits.

DEQ worked with the industry to ensure that the state was communicating the issues to everyone involved, and treating dehys fairly and consistently across the industry. The affected dehys were responsive, and have taken effective action to correct

## To Contact the Eastern Field Office

### Location:

8901 So. 154th St., Suite #5  
(lower level of Papio-Missouri River Natural Resources District Center, Chalco Hills Recreation Area)

**Hours:** 8 a.m. to 5 p.m.

Monday - Friday

**Phone:** (402) 595-1769

### Mailing address:

Nebraska Department of Environmental Quality  
Eastern Field Office  
Suite #5, 8901 So. 154th St.  
Omaha, Ne 68138-3621

the emission concerns.

"All have submitted plans, and six of the nine who had problems are now in compliance with the standards," said Shelley Kaderly, DEQ Air Quality Division Administrator. "The remaining three will also soon be in compliance. Control equipment is on order and will be installed soon."

Communication played an important part in the successful resolution of this situation, Kaderly said. The state's role involved explaining the regulations, discussing the issues and potential solutions, and demonstrating that the agency was making every effort to be consistent and fair with all Nebraska dehys.

Kaderly commended the affected industries for their response to this information.

"We are very pleased with the good faith efforts made by the industry to correct the situation," Kaderly said.

The end result will be cleaner air at these sites. The Department estimates the dehys' efforts will prevent approximately 100 tons of particulate emissions from being released into the air annually.

*Article by Brian McManus*

# Legislation 2000

There were several measures passed in the 2000 legislative session which address significant environmental issues. In addition, the Legislature passed numerous resolutions relating to issues that they wish to see examined in 2000, for further consideration in the 2001 session.

## Bills

Of the environmental bills passed in 2000, the most far-reaching was LB1234, which addressed several environmental issues. These issues include:

- Requiring DEQ to assess water quality efforts in Nebraska and determine what changes are necessary to establish a comprehensive, integrated statewide water quality monitoring system.
- Giving the DEQ authority to provide emergency grants to municipalities with wastewater treatment facilities which have been damaged or destroyed by natural disaster or other unanticipated circumstances. In addition, the amount DEQ can provide small towns for wastewater grants has been raised from \$300,000 to \$500,000, and fees revenue can be used to fund these grants.
- Establishing an ethanol task force to examine practices and policies relating to ethanol pricing. In addition, retailers are prohibited from using MTBE as a fuel additive. This measure was prompted over potential contamination problems from MTBE.
- Revising the structure of the Niobrara Council to address issues related to protection of the Niobrara scenic river corridor, and ensure local participation and control.

Another bill passed in the 2000 session will have direct impact on DEQ, although it is not strictly an environmental measure. Legislative Bill 628 revises the laws relating to public access to records for all state agencies and local governments. This impacts DEQ significantly because the agency receives numerous records requests.

One major change in the public records law relates to response timelines. LB 628 states that state agencies must respond within four business days of receiving a written records request, and can either 1) provide copies of the documents at the specified rates; 2) provide a written explanation of why the request is being denied; or 3) if it is not possible to fill the request in four days, provide a written response detailing the expected time of completion and cost.

Much of what is called for in LB 628 was already in place in the agency. The department has a records management program which assists the public to obtain copies or review records.

## Resolutions

- LR 334 Interim study of the Petroleum Release Remedial Action Act
- LR 339 Interim study of issues relating to hazardous materials incidents
- LR 368 Interim study of statutes dealing with ground water transfers
- LR 369 Interim study to examine a plan to divert lead and other hazardous materials from landfills and the environment, and costs associated with the plan
- LR 373 Interim study of the financial responsibilities of Nebraska's public electric utility industry relating to expenses of nuclear power plants
- LR 374 Interim study to review the need to provide authority to the DEQ to accept voluntary fees paid by applicants for processing of permits
- LR 375 Interim study of the financial and environmental implications of the removal of environmental contaminants from buildings
- LR 376 Interim study of the powers of the DEQ relating to protection of cold water class A streams in Nebraska
- LR 377 Interim study to examine the environmental effects of air pollutants from agriculture processing facilities' wastewater treatment lagoons
- LR 379 Interim study to examine ways to enhance public awareness of the Nebraska Environmental Trust Act and its mission
- LR 381 Interim study to examine the possibilities of developing a water banking program
- LR 382 Interim study of the effects of MTBE on the environment
- LR 383 Interim study of solid waste collection services as they relate to the Integrated Solid Waste Management Act
- LR 384 Interim study to examine the need to provide the DEQ with authority to assess administrative fines

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## Planning Key to Livestock Waste Management

*The recent trend toward larger, more concentrated, livestock operations has focused public attention on livestock waste disposal, and how large quantities of waste potentially affect ground water, surface water, and the quality of life in rural areas. The following article discusses recent changes to DEQ livestock waste management regulations that address these concerns through new requirements for livestock facility nutrient management.*

Applying livestock waste to cropland (land application) has long been a standard method of waste disposal, but the amount of waste to be land applied is now more concentrated in fewer livestock operations. As a result, public concern has grown about overapplication of livestock waste and possible contamination of ground water and surface water.

"Public concern intensified with the recent increase in the number of large confinement operations in the state," said Dennis Heitmann, DEQ Agriculture Section Supervisor. "The concerns we hear from the public have often been about whether large operations could be operated safely so that they do not impact waters of the state."

The state legislature and DEQ responded to these concerns with new legislation and revised regulations. After extensive input from the public, livestock associations, and local government agencies, Title 130, Rules and Regulations Pertaining to Livestock Waste Control, was revised and took effect February 28, 2000. Title 130 contains numerous new waste management provisions, including monitoring and controlling the application of livestock waste.

The revised regulations require those applying for permits to construct or modify livestock waste control facilities to submit a Comprehensive Nutrient Management Plan as part of their application. The plan must detail



Land application, such as through the use of a manure spreader, can be an effective means of dealing with livestock waste — if applied properly.

how livestock waste generated by the operation is to be utilized. Operators must also keep records of the amount and location of each land application.

"Developing and implementing a nutrient management plan ensures that land application is done properly, and excessive nutrients are not being applied to a piece of land," Heitmann said. "Due to increased attention to nutrient management, we are seeing less overapplication than in the past. It used to be common to apply waste close to the operation because of transportation costs. Because of soil testing and education programs, producers are now more aware of the need to distribute the nutrients."

All nutrient management plans must contain information on the following basic categories:

- Land application area information;
- Easements for land not owned by the operation;
- Soil sampling and analysis information;
- Estimate or analysis of the nutrient content of waste;
- Planned application rates, methods, and frequencies;
- Records of application locations, quantity of waste applied, sample results, and waste sold or given away; and
- Location of wetlands (may need to be indicated).

Help in developing the plan is available. DEQ has developed a guidance

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## Nebraska Among Leaders

Nebraska is among the first states to require a Comprehensive Nutrient Management Plan as part of the application to obtain a livestock waste control facility construction or operating permit.

The Environmental Protection Agency (EPA) currently is in the process of developing effluent guidance standards for all livestock operations of more than 1,000 animal units. These standards will include a requirement to have a nutrient management plan in place. EPA expects the standards to take effect by December 2001 for swine and poultry operations and by December 2002 for cattle and dairy operations. Nebraska's nutrient management plan requirement became effective February 28, 2000.

"State-implemented regulations on livestock waste control are preferable, because they can be based specifically on what producers are doing here, rather than being based on a national 'one-size-fits-all' approach," said Renee Hancock, DEQ Livestock Unit Supervisor. "The nutrient management plans required by DEQ will differ from operation to operation, since the plan can be site specific."

*Article by Pat Dinslage*

# Hazardous Waste: Did You Know?

## Waste Determinations

All waste generators (except households) are required to do a waste determination to find out if their waste is a regulated hazardous waste. This means you must:

- determine if the waste is excluded from regulation by Title 128, Chapter 2;
- determine if the waste is listed as a hazardous waste; and
- determine if the waste is a characteristic hazardous waste.

For purposes of determining if the waste is a characteristic hazardous waste, you may either test the waste according to protocols specified in the state's hazardous waste regulations, or apply generator knowledge of the hazardous characteristic in light of the materials or processes used. You can call Jim Harford at (402) 471-8308 for assistance. See Title 128 - Rules and Regulations Governing Hazardous Waste Management in Nebraska, Chapter 4,

Section 002 for more detailed information.

## Re-notification

If you are a small or large quantity generator of hazardous waste you need to notify the DEQ of your hazardous waste activity. Most folks get that part done just fine. However, we often see hazardous waste generators failing to re-notify the DEQ when their information changes. Some examples of changes for which you need to re-notify are:

- change of owner or owner address and phone number;
- change of installation contact person or address and phone number;
- change of generator status; and
- used oil marketing activities.

Renotification is required within 30 days of the change. By the way, you do not need to re-notify for changes to your previously submitted waste codes. Title 128-Rules and Regulations Governing Hazardous Waste Management in Nebraska, Chapter 4, Section 003.002 tells you all about it. Call Teri Swarts at (402) 471-4218 if you have any questions regarding hazardous waste activity notification.

*Article by Jim Harford*

## Livestock Waste

*cont. from page 9*

document that lists the information required in a nutrient management plan, and is studying the possibility of developing a simplified nutrient management plan example for Class I livestock operations. In addition, the University of Nebraska, DEQ, Natural Resources Conservation Service (NRCS), and livestock associations are cooperating to assist producers in developing plans for waste and nutrient management. The cooperative efforts include the development of educational programs on waste management and a workbook-type tool.

Developing the plan may be time-consuming, but has definite advantages for the livestock producer. "With a nutrient management plan, producers may find they can save on commercial fertilizers and still apply nutrients at a rate that the crop needs," Heitmann said.

The nutrient management plan guidance document and other ag-related guidance documents can be found under either of the "Publications" categories on the DEQ web site at: [www.deq.state.ne.us](http://www.deq.state.ne.us). For additional information, contact the Agriculture Section at (402) 471-4239 or 877-253-2603.

*Article by Pat Dinslage and Rich Webster*

## New System in Central City



Visitors tour the new wastewater treatment facility in Central City during an Open House on June 30. The new facility, which cost \$4.5 million, received support from DEQ's State Revolving Fund loan program, as well as financial aid from USDA. Officials said the new facility will effectively treat the community's current wastewater needs, and has capacity for new and expanding businesses in the future.

## Speakers Bureau

Are you having a difficult time locating a speaker on an environmental topic? Several DEQ employees are available to present information on a variety of environmental issues. One of these professionals may fit your need. If you would like to inquire about a speaker for an environmental related activity, please contact the Environmental Assistance Division at 402-471-6974.

## Many contribute to TRS solution in Lexington

Air quality in Lexington should improve considerably due to the collective efforts of numerous businesses to reduce Total Reduced Sulfur, or TRS. IBP's construction activities (which are featured in an article on page 3) are part of a larger collective effort among businesses in the area.

DEQ had determined through monitoring that there were TRS problems in the Lexington area, and identified several potential sources of emissions. State regulations require DEQ to seek voluntary action from potential sources as a first step in resolving TRS problems. Therefore, the agency contacted the potential sources that had been identified, to discuss the problem and develop a plan of action. These potential sources included a number of feedlots, IBP, Nebraska Byproducts, and the City of Lexington. The voluntary response has been very good, according to DEQ staff.

"The feedlots joined together and

submitted a plan that addressed their common issues," said Shelley Kaderly, Air Quality Division Administrator. "Nebraska Byproducts submitted a plan in which they will relocate and install improved air emission controls. IBP is covering their lagoons and will capture and treat air emissions. And, we are continuing to work with the City of Lexington to assess their emissions and determine what actions should be taken."

DEQ Deputy Director Jay Ringenberg said that this type of cooperative process can be the best approach to effectively solve an environmental problem.

"We've found that people are typically willing to do the right thing, if you talk to them and explain the problem," Ringenberg said. "The efforts in Lexington are a good example of this. We discussed the problem and alternatives, and they came back to us with effective solutions."

Ringenberg said this cooperative approach should yield significant improvements in air quality in Lexington — in a much shorter timeframe than if the agency had taken a traditional enforcement approach.

*Article by Brian McManus*

## Calendar of Events

**September 5, 2000**

Deadline for Environmental Trust grant applications. Call (402) 471-5409

**September 15, 2000**

Deadline for submittal of Litter Reduction and Recycling Grant applications. Call (402) 471-2186 for more information.

**September 21-22, 2000**

Fall Conference of the Nebraska Cornhusker Chapter of the Solid Waste Association of North America (SWANA), at the Midtown Holiday Inn, 2503 S. Locust, Grand Island. For more information, call Gene Hanlon at (402) 441-7043

**September 29, 2000**

Environmental Quality Council meeting at the Cornhusker Hotel, Lincoln. Hearings scheduled for amendments to Title 199-Waste Reduction and Recycling Incentive Grants Program, and the Program Priority for the Litter Reduction and Recycling Incentive Grants Program.

**October 4-6, 2000**

Tri-State Recycling Conference, Council Bluffs, IA. For more information, call the Nebraska State Recycling Association at (800) 248-7328.

**October 9-11, 2000**

Second International Conference and Exhibition on Air Pollution from Agriculture Operations, Des Moines, IA. Contact the American Association of Agricultural Engineers for more information at (616) 429-0300.

## Legislation 2000

*cont. from page 8*

- LR 385** Interim study to review state statutes, regulations, and policies on scrap tire management and disposal
- LR 386** Interim study to examine creation of an environmental stewardship program
- LR 387** Interim study to examine whether the goals of the Integrated Solid Waste Management Act have been reached
- LR 418** Interim study of the feasibility of providing compensation from the Nebraska Environmental Trust Fund to individuals engaged in agriculture for the development of buffer strips
- LR 420** Interim study to examine implementation and funding authority for municipalities to comply with federal mandates requiring development of storm water management plans
- LR 445** Interim study to examine funding for the air quality permit program administered by the DEQ and caps on emission fees



## TMDLs, *cont. from page 1*

ting process. We are now moving forward to establish TMDLs in priority areas.”

In fact, proposed TMDLs for two areas in Nebraska – Pawnee Reservoir and the west fork of the Big Blue watershed – were placed on notice in June to receive public comments. Over the next year, the state intends on seeking public comment on additional TMDLs for rivers and lakes across the state. The agency will also carefully review the many changes in EPA’s recent revisions, to ensure that the state is prepared for the October 2001 implementation date.

In addition, the state will be evaluating the state’s water quality monitoring program and setting goals for the future. Legislative Bill 1234, passed in the spring 2000 session, calls for an evaluation of the water quality resources of DEQ and other state, federal and local programs. The purpose is to evaluate what monitoring resources currently exist, and to determine if changes are needed. Linder said this ties in well with ongoing efforts the agency is making

to enhance the effectiveness of programs.

“Planning for water quality simply must include local agricultural producers and citizens,” Linder said. “State government and certainly the federal government do not have all the answers. We have expertise and some resources, but we need local input, too.”



Photo by Brian McManus

Greg Michl (right) and Jim Beebe of DEQ’s Water Quality Assessment Section measure the flow velocity of Sand Creek, north of Wahoo. See related story on page 1.

“We need to examine water monitoring issues as a whole, so we can improve our strategies and address the overall needs of the state.”

The upcoming fall edition of the Environmental Update will provide more detail on these efforts.

*Article by Brian McManus*



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